## Est. | YORK 1841 | ST JOHN | UNIVERSITY

### Ebo, Titus Oloruntoba ORCID

logoORCID: https://orcid.org/0000-0002-8104-4050, Olawade, David ORCID logoORCID: https://orcid.org/0000-0003-0188-9836, Ebo, Dolapo Mary ORCID logoORCID: https://orcid.org/0009-0008-5980-3752, Egbon, Eghosasere and Ayoola, Folasayo I. (2025) The lasting impact of COVID-19 on forensic mental health: A review of shifts in patient profiles, service delivery, and legal considerations. Journal of Forensic and Legal Medicine, 114. p. 102920.

Downloaded from: https://ray.yorksj.ac.uk/id/eprint/12200/

The version presented here may differ from the published version or version of record. If you intend to cite from the work you are advised to consult the publisher's version: https://doi.org/10.1016/j.jflm.2025.102920

Research at York St John (RaY) is an institutional repository. It supports the principles of open access by making the research outputs of the University available in digital form. Copyright of the items stored in RaY reside with the authors and/or other copyright owners. Users may access full text items free of charge, and may download a copy for private study or non-commercial research. For further reuse terms, see licence terms governing individual outputs. Institutional Repository Policy Statement

# RaY

Research at the University of York St John For more information please contact RaY at <u>ray@yorksj.ac.uk</u>



Contents lists available at ScienceDirect

### Journal of Forensic and Legal Medicine



journal homepage: www.elsevier.com/locate/yjflm

Review

## The lasting impact of COVID-19 on forensic mental health: A review of shifts in patient profiles, service delivery, and legal considerations

Titus Oloruntoba Ebo<sup>a</sup>, David B. Olawade<sup>b,c,d,e,\*</sup>, Dolapo Mary Ebo<sup>f</sup>, Eghosasere Egbon<sup>g</sup>, Folasayo I. Ayoola<sup>h</sup>

<sup>a</sup> Forensic Mental Health Unit, Nottinghamshire Healthcare NHS Foundation Trust, United Kingdom

<sup>b</sup> Department of Allied and Public Health, School of Health, Sport and Bioscience, University of East London, London, United Kingdom

<sup>c</sup> Department of Research and Innovation, Medway NHS Foundation Trust, Gillingham, ME7 5NY, United Kingdom

<sup>d</sup> Department of Public Health, York St John University, London, United Kingdom

e School of Health and Care Management, Arden University, Arden House, Middlemarch Park, Coventry, CV3 4FJ, United Kingdom

<sup>f</sup> Child and Adolescent Mental Health Service (CAMHS), Leicestershire Partnership NHS Trust, United Kingdom

<sup>g</sup> Department of Tissue Engineering and Regenerative Medicine, Faculty of Life Science Engineering, FH Technikum, Vienna, Austria

<sup>h</sup> Department of Health Policy and Management, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Nigeria

ARTICLE INFO

Keywords: Forensic psychiatry COVID-19 Telepsychiatry Legal competency Forensic mental health services

#### ABSTRACT

The COVID-19 pandemic has had a profound and lasting impact on forensic mental health, reshaping patient profiles, disrupting service delivery, and introducing new legal and ethical challenges. This narrative review examines the long-term implications of the pandemic on forensic psychiatric populations, mental health service provision, and the justice system. Evidence suggests that rates of severe mental illness, including psychosis, depression, and anxiety, have increased among forensic patients, exacerbated by isolation, stress, and reduced access to care. Additionally, substance use disorders, and co-occurring psychiatric conditions have become more prevalent, complicating treatment and rehabilitation efforts. The pandemic also accelerated the adoption of telepsychiatry in forensic settings, improving accessibility but raising concerns about the reliability of remote assessments for competency evaluations and risk assessments. Inpatient and prison-based forensic psychiatric services experienced staff shortages, increased patient aggression, and limited access to therapeutic programs, further straining the system. Court closures and legal case backlogs delayed forensic evaluations, raising human rights concerns for detained individuals. Ethical dilemmas emerged regarding involuntary hospitalization, treatment prioritization, and resource allocation. As the forensic mental health field transitions into a postpandemic landscape, key lessons include the need for hybrid forensic assessment models, strengthened forensic infrastructure, and better integration of legal and clinical perspectives. Future research should focus on developing resilient forensic mental health policies and ensuring equitable access to care while maintaining legal and ethical standards.

#### 1. Introduction

The COVID-19 pandemic significantly disrupted global healthcare systems, posing unprecedented challenges across various medical and psychiatric disciplines.<sup>1–3</sup> Among the most affected areas was forensic mental health, a field that lies at the critical intersection of psychiatry and law.<sup>4,5</sup> Forensic mental health encompasses the assessment, treatment, and management of individuals with mental disorders who interact with the criminal justice system.<sup>6</sup> This includes individuals found not criminally responsible due to mental illness, those deemed

incompetent to stand trial, and offenders with severe psychiatric conditions requiring hospitalization in secure forensic facilities. The pandemic introduced a new layer of complexity to this already intricate domain, exacerbating preexisting challenges while also creating novel issues that continue to affect forensic mental health services today.<sup>7,8</sup>

The global crisis intensified psychiatric distress among forensic populations, many of whom were already experiencing severe mental health conditions.<sup>9,10</sup> Factors such as increased social isolation, anxiety over the virus, loss of structured routines, and disruptions in psychiatric care contributed to worsening mental health symptoms, including

https://doi.org/10.1016/j.jflm.2025.102920

Received 20 February 2025; Received in revised form 8 April 2025; Accepted 20 June 2025 Available online 25 June 2025

1752-928X/© 2025 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

<sup>\*</sup> Corresponding author. Department of Allied and Public Health, School of Health, Sport and Bioscience, University of East London, London, United Kingdom. *E-mail address:* d.olawade@uel.ac.uk (D.B. Olawade).

higher rates of psychosis, depression, and suicidality.<sup>11</sup> Additionally, the pandemic led to an increase in substance use disorders, with many forensic patients experiencing heightened dependency on drugs and alcohol as a coping mechanism.<sup>12</sup> For individuals within correctional facilities, prolonged lockdowns, reduced access to rehabilitative programs, and the suspension of in-person visits further compounded their psychological struggles.<sup>13,14</sup> The heightened risk of infection within prisons and psychiatric hospitals also raised ethical concerns regarding the management and prioritization of care for forensic patients.<sup>15</sup>

Beyond its impact on individual patients, the pandemic also reshaped how forensic mental health services were delivered.<sup>16</sup> Traditional models of forensic psychiatry relied heavily on in-person assessments, court proceedings, and institutional-based care.<sup>17</sup> However, COVID-19 necessitated rapid adaptations, leading to the widespread implementation of telepsychiatry for forensic evaluations and treatment sessions.<sup>18</sup> While virtual consultations provided a temporary solution to ensure continuity of care, they also presented significant challenges, particularly regarding the reliability of forensic risk assessments, the ability to detect malingering, and the establishment of therapeutic relationships in a remote setting.<sup>19</sup> Additionally, forensic psychiatric hospitals and correctional institutions faced operational challenges, including staff shortages, infection control measures, and increased incidences of violence and agitation among patients due to heightened stress and uncertainty.<sup>20</sup>

The legal landscape also underwent significant transformations because of the pandemic, influencing key processes such as competency evaluations, criminal responsibility assessments, and court hearings.<sup>2</sup> Delays in legal proceedings due to court closures led to prolonged detainment for individuals awaiting psychiatric evaluations, raising human rights concerns.<sup>22</sup> Moreover, forensic experts and legal professionals had to grapple with emerging questions regarding the mental health effects of COVID-19 itself.<sup>23</sup> Early research suggested that the virus might have neurological and psychiatric consequences, leading to discussions about whether post-COVID cognitive impairments or psychotic symptoms should be considered in legal defences or competency rulings.<sup>24,25</sup> The pandemic also highlighted broader ethical dilemmas, such as how to balance public health measures with the rights of forensic patients, particularly in instances where individuals refused treatment or where institutions had to prioritize resources amidst overwhelming demand.<sup>26,2</sup>

As societies gradually transition into a post-pandemic reality, it is imperative to critically examine the long-term implications of these disruptions on forensic mental health. While the initial response to the crisis was largely reactive, a deeper analysis is needed to assess how forensic mental health systems have adapted and whether these changes should be sustained, modified, or abandoned altogether. Additionally, forensic psychiatrists, legal professionals, and policymakers must collaborate to address ongoing challenges, including the integration of digital health solutions, the reform of legal procedures to accommodate future crises, and the development of policies that ensure equitable access to forensic mental health care.  $^{28-30}$ 

The COVID-19 pandemic has significantly disrupted forensic mental health, yet the long-term implications of these changes remain underexplored.<sup>31,32</sup> While immediate challenges such as increased psychiatric distress, service disruptions, and legal delays were widely acknowledged, their lasting effects on forensic patient profiles, treatment models, and legal considerations require further investigation.<sup>33,34</sup> The pandemic accelerated the adoption of telepsychiatry and remote forensic assessments, raising concerns about their reliability, ethical implications, and long-term viability in legal settings.<sup>35,36</sup> Given the critical role of forensic mental health at the intersection of psychiatry and the criminal justice system, it is essential to evaluate these shifts to ensure continued access to equitable and effective care. This narrative review aims to analyse how forensic mental health has evolved since the pandemic, focusing on changes in patient demographics, service delivery models, and legal adaptations. Specifically, the review will examine shifts in forensic patient profiles, including psychiatric and substance use trends, evaluate the impact of the pandemic on forensic mental health service delivery, including the use of telepsychiatry and institutional care disruptions, assess the legal and ethical implications of pandemic-related changes, particularly in forensic assessments and court proceedings, and identify best practices and policy recommendations to enhance the resilience of forensic mental health systems. By synthesizing emerging evidence and expert perspectives, this study aims to contribute valuable insights that inform future forensic mental health policies, ensuring that services remain effective, ethical, and adaptable in a post-pandemic world.

#### 2. Methods

This study adopts a narrative review methodology to synthesise and critically examine the literature on the long-term impact of the COVID-19 pandemic on forensic mental health. A narrative review was chosen due to its flexibility in incorporating a broad range of interdisciplinary sources, including empirical studies, expert commentaries, legal analyses, and policy reports, that address psychiatry, public health, and law. This approach allows for thematic exploration and expert-informed synthesis rather than strict quantitative aggregation.

#### 2.1. Literature search strategy

To enhance the transparency and replicability of this review, a structured literature search was conducted between January 2020 and December 2024 using the following electronic databases:

- Medical and mental health sources: PubMed, MEDLINE, Embase, PsycINFO, and Scopus
- Legal and policy sources: Westlaw, HeinOnline, and Google Scholar
- Health policy and international agency reports: World Health Organization (WHO), U.S. Centers for Disease Control and Prevention (CDC), and the National Institute of Mental Health (NIMH)

The search strategy combined Medical Subject Headings (MeSH) and free-text keywords to maximize the breadth of relevant results. Example search terms included:

- ("COVID-19" OR "coronavirus" OR "pandemic") AND
- ("forensic psychiatry" OR "forensic mental health" OR "secure psychiatric services" OR "prison mental health") AND
- ("telepsychiatry" OR "remote assessment" OR "virtual care" OR "mental health service delivery") AND
- ("legal competency" OR "fitness to stand trial" OR "criminal responsibility") AND
- ("ethical considerations" OR "human rights" OR "involuntary admission" OR "resource allocation")

Boolean operators were used to refine and broaden results where necessary. The search was limited to English-language publications and prioritised peer-reviewed journal articles, systematic reviews, government or organisational reports, and relevant grey literature (e.g., preprints, white papers).

#### 2.2. Inclusion and exclusion criteria

Articles were included if they met the following criteria:

- Published from January 2020 onward
- Focused on forensic psychiatric populations, forensic mental health services, or legal processes involving mentally ill offenders
- Addressed service delivery changes, including telepsychiatry or institutional adaptations, or explored the ethical and legal ramifications of pandemic-related disruptions

Exclusion criteria included:

- Studies on general psychiatric populations with no forensic relevance
- Articles lacking empirical or conceptual relevance to the pandemic's impact on forensic settings
- Duplicates or papers with insufficient methodological clarity

Additionally, the reference lists of key studies and review articles were manually screened to identify additional high-value sources that might have been missed during the database searches.

#### 2.3. Data extraction and thematic synthesis

Data from included sources were analysed using a thematic synthesis approach, which involved:

- 1. Identifying and coding relevant content within each study
- 2. Organising the codes into overarching themes
- 3. Structuring the synthesis around three central areas:
  - Changes in forensic patient profiles (e.g., mental illness, substance use, neuropsychiatric effects)
  - Adaptations in service delivery models (e.g., telepsychiatry, inpatient care, community services)
  - Legal and ethical implications (e.g., court delays, competency evaluations, ethical dilemmas)

Studies were appraised for relevance and contribution to the review's objectives, with preference given to peer-reviewed literature and high-quality institutional publications. Although formal risk-of-bias tools were not employed due to the narrative nature of the review, each study's methodological soundness, transparency, and evidentiary strength were considered during synthesis.

## 3. Shifts in patient profiles: changing mental health trends in forensic populations

The pandemic has had a profound impact on mental health globally, increasing the prevalence of psychiatric disorders due to stress, social isolation, financial hardship, and bereavement.<sup>37,38</sup> These effects have been particularly pronounced in forensic populations, where preexisting vulnerabilities were exacerbated by the crisis.<sup>39</sup>

#### 3.1. Increased incidence of severe mental illness and crisis presentations

The COVID-19 pandemic has led to a notable increase in severe mental health issues and crisis presentations, particularly among individuals with preexisting mental illnesses. Studies have documented a significant rise in symptoms of psychosis, depression, and anxiety during the pandemic.<sup>40,41</sup> During the first wave of the COVID-19 pandemic, 36.7 % of respondents experienced clinical insomnia symptoms, 25.6 % had probable anxiety, and 23.1 % had probable depression.<sup>42</sup> Many studies suggest that the prevalence of depression ranges from 15.2 % to 35 % and anxiety from 15.9 % to 38.4 % across various populations and conditions, with higher rates observed during specific circumstances such as conflict, COVID-19, and in certain medical conditions.<sup>43–47</sup> These physiological symptoms were found to correlate with inflammatory markers like C-reactive protein and were more prevalent in patients with severe COVID-19 infections.<sup>48</sup>

In forensic settings, the prolonged isolation resulting from lockdown measures exacerbated psychiatric conditions among incarcerated individuals and forensic psychiatric patients.<sup>49,50</sup> The lack of social interaction, coupled with restricted access to therapeutic program, led to worsening symptoms of schizophrenia and affective disorders, often necessitating crisis interventions.<sup>51</sup> A study focusing on the early impacts of the pandemic on mental health services noted that organizational changes were implemented to ensure continuity of psychiatric care while reducing the risk of SARS-CoV-2 transmission.  $^{52-54}$  However, these changes sometimes resulted in reduced access to in-person psychiatric care, further challenging the management of severe mental illnesses in secure settings.  $^{55,56}$ 

The pandemic also heightened suicide risk among forensic populations. Increased distress due to factors such as fear of infection, uncertainty about the future, and the isolation contributed to this risk.<sup>57</sup> The reduction in face-to-face psychiatric consultations during lockdowns meant that many forensic patients could not receive the timely interventions they required.<sup>58,59</sup> A report on the psychosocial functioning of healthcare providers during the pandemic highlighted the broader challenges faced by mental health services, including the strain on resources and the need to adapt to rapidly changing circumstances, which indirectly affected patient care.<sup>60–62</sup> These findings underscore the critical need for mental health services to adapt to the challenges posed by the pandemic, ensuring that individuals with severe mental illnesses, particularly within forensic settings, receive adequate support and intervention during such crises.

#### 3.2. Substance use disorders and Co-occurring conditions

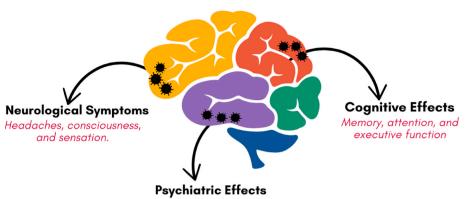
The COVID-19 pandemic has significantly impacted individuals with substance use disorders (SUDs), particularly within forensic populations.<sup>63,64</sup> Economic hardships and heightened stress levels have contributed to an increase in SUDs, while disruptions to treatment programs have led to higher relapse rates and more complex co-occurring mental health issues among forensic psychiatric patients.<sup>65–67</sup> Economic instability and increased stress during the pandemic have been linked to a rise in substance use.<sup>68,69</sup> A survey by the American Psychological Association found that 13 % of Americans reported starting or increasing substance use as a way of coping with stress or emotions related to COVID-19.70 For individuals within the criminal justice system, these factors have exacerbated existing vulnerabilities, leading to a notable increase in SUDs.<sup>71</sup> The pandemic has also disrupted substance use treatment programs, particularly in forensic settings.<sup>72</sup> Many rehabilitation facilities suspended programs and limited new admissions to mitigate virus transmission.<sup>73,74</sup> These disruptions have led to increased relapse rates and heightened behavioural risks among individuals with SUDs.7

Consequently, forensic psychiatric patients are now presenting with more complex co-occurring mental health and addiction issues than before the pandemic.<sup>76,77</sup> The convergence of increased substance uses and limited access to treatment has intensified the severity of cases within forensic settings, posing significant challenges for healthcare providers.<sup>78,79</sup> These findings underscore the need for targeted interventions to address the compounded challenges of SUDs and mental health disorders in forensic populations during and beyond the pandemic.

#### 3.3. Neuropsychiatric and cognitive effects of COVID-19

Emerging evidence indicates that COVID-19 infection can lead to significant neuropsychiatric and cognitive consequences, including impairments in memory, attention, and executive function, as well as mood disturbances such as depression and anxiety.<sup>80</sup> The effects have been observed across various populations and may persist long after the acute phase of the illness.<sup>81</sup> Studies have documented a range of neurological symptoms associated with COVID-19, including headaches, altered consciousness, and paraesthesia.<sup>82,83</sup> Additionally, there is evidence of brain tissue edema and partial neurodegeneration in some patients.<sup>84,85</sup> These findings suggest that the virus has the potential to cause nervous system damage, leading to cognitive impairments and mood disorders. Fig. 1 illustrates cognitive impairments, neurological symptoms, and psychiatric effects.

In forensic settings, individuals who contracted COVID-19 may be at



Mood regulation and anxiety

Fig. 1. Neuropsychiatric and cognitive effects of COVID-19 on the brain.

increased risk for long-term psychiatric symptoms.<sup>86,87</sup> The combination of pre-existing mental health conditions and the neuropsychiatric effects of the virus can exacerbate cognitive impairments and mood disturbances.<sup>88</sup> This has significant implications for legal competencies and rehabilitation outcomes, as cognitive deficits and mood disorders can affect an individual's ability to participate in legal proceedings and benefit from rehabilitative interventions.<sup>89</sup>

The findings underscore the importance of monitoring and addressing the neuropsychiatric and cognitive effects of COVID-19 forensic populations. Early identification and intervention are crucial to mitigate the impact on legal competencies and rehabilitation outcomes. Further research is needed to understand the long-term effects of COVID-19 on the brain and to develop effective strategies for managing these challenges in forensic settings.

#### 4. The evolution of forensic mental health service delivery

The COVID-19 pandemic forced forensic mental health services to adapt rapidly, leading to significant shifts in assessment, treatment, and crisis management.<sup>90,91</sup> Traditional in-person forensic evaluations and psychiatric care were disrupted, necessitating the widespread adoption of telepsychiatry for competency assessments, risk evaluations, and therapeutic interventions.<sup>92</sup> Secure psychiatric hospitals and correctional facilities faced operational challenges, including staff shortages, infection control measures, and increased patient agitation due to isolation and restricted movement.<sup>93,94</sup> Community forensic services also had to modify their approach, relying on virtual check-ins and alternative supervision strategies for individuals under legal and psychiatric care.<sup>95</sup> These changes, while essential for continuity of care during the crisis, have raised questions about the long-term viability, effectiveness, and ethical implications of remote forensic mental health practices in a post-pandemic world.<sup>96,97</sup>

#### 4.1. The rise of telepsychiatry in forensic assessments

The COVID-19 pandemic has significantly accelerated the adoption of telepsychiatry within forensic mental health services, transforming traditional practices in assessments and evaluations.<sup>98,99</sup> As in-person interactions became limited due to health concerns, telehealth emerged as a primary mode for delivering psychiatric care, including conducting forensic evaluations and competency assessments.<sup>100,101</sup> This shift has prompted both opportunities and challenges in the field.

The integration of telepsychiatry into forensic settings has enhanced access to care, particularly in underserved or remote areas. <sup>92,102</sup> Studies have demonstrated that telepsychiatry assessments can be as reliable as in-person evaluations for various psychiatric conditions.<sup>103,104</sup> For instance, research indicates high interrater reliability between telemedicine and face-to-face assessments when using standardized tools

like the Brief Psychiatric Rating Scale and the MacArthur Competence Assessment Tool–Criminal Adjudication.  $^{105,106}$ 

However, concerns persist regarding the efficacy of telepsychiatry in forensic evaluations. Critics argue that remote assessments may be more susceptible to feigned responses or defensive behaviours that are harder to detect without physical presence.<sup>107</sup> Additionally, evaluating subtle psychiatric symptoms, such as the negative symptoms of schizophrenia, may be challenging in a virtual format due to the nuances involved in patient observation and interaction.<sup>108,109</sup>

The legal community remains divided on the long-term adoption of telepsychiatry in forensic contexts.<sup>110</sup> While some practitioners advocate for its continued use, citing comparable outcomes to traditional methods, others call for more rigorous research to address validity concerns and to establish comprehensive guidelines.<sup>111,112</sup> The need for standardized protocols is emphasized to ensure that tele psychiatric evaluations meet the evidentiary standards required in legal proceedings.<sup>113,114</sup> Overall, while telepsychiatry has provided a viable alternative for forensic assessments during the pandemic, ongoing debates highlight the necessity for further studies and the development of best practice guidelines to ensure its reliability and acceptance in legal and clinical decision-making.

#### 4.2. Disruptions to inpatient and prison-based forensic mental health care

The COVID-19 pandemic has significantly disrupted inpatient and prison-based forensic mental health care, leading to challenges such as staffing shortages, increased patient aggression, and limitations on therapeutic interventions.<sup>115</sup> These disruptions have adversely affected patient outcomes and raise concerns about the adequacy of care in secure settings.<sup>116</sup> Forensic psychiatric hospitals and correctional facilities have faced notable staffing shortages during the pandemic.<sup>117,118</sup> Factors contributing to this issue include healthcare workers contracting the virus, the need for quarantine, and burnout due to increased workloads.<sup>119,120</sup> A study analysing the impact of COVID-19 on forensic mental health services in London reported significant challenges in maintaining adequate staffing levels, which affected the continuity and quality of patient care.<sup>121</sup>

The pandemic has also led to heightened patient aggression within these facilities.<sup>122,123</sup> Restrictions on movement, suspension of visitation rights, and the overall stress associated with the pandemic have contributed to increased agitation and aggressive behaviours among patients.<sup>124</sup> Research indicates that prolonged lockdowns and preventive quarantine measures resulted in elevated rates of anxiety, depression, and exacerbation of psychotic symptoms among detained individuals, further contributing to aggressive incidents.<sup>125–127</sup>

In response to the risk of COVID-19 outbreaks, many facilities implemented strict isolation measures and restricted in-person therapy sessions, including group therapy and rehabilitation programs.<sup>128,129</sup>

While necessary for infection control, these measures hindered patient progress by limiting access to essential therapeutic activities. A study on the psychosocial rehabilitation of forensic psychiatric patients in Austria found that the suspension of group therapies and limited social interactions negatively impacted patients' mental health and rehabilitation outcomes.<sup>130</sup> These challenges underscore the need for developing strategies to mitigate the impact of pandemics on forensic mental health care. Ensuring adequate staffing, maintaining access to therapeutic interventions, and balancing infection control with patient well-being are critical considerations for managing future public health crises in secure settings.

#### 4.3. Changes in community forensic services and reintegration challenges

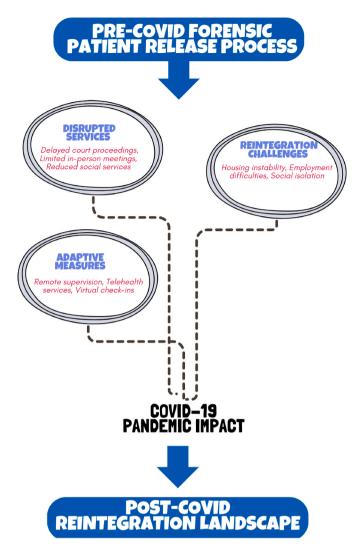
The COVID-19 pandemic has significantly disrupted community forensic services, presenting substantial challenges for the reintegration of forensic patients into society.<sup>130,131</sup> Parole and probation services experienced delays and operational hurdles, complicating the release processes and subsequent community reintegration efforts for these individuals.<sup>132,133</sup> Concurrently, reductions in social services and increased housing instability further marginalized forensic patients during their transition back into the community.<sup>134,135</sup> In response, mental health providers and law enforcement agencies adapted by implementing remote supervision methods and virtual check-ins to maintain oversight and support for forensic patients.<sup>136,137</sup>

The pandemic led to significant disruptions in parole and probation services, resulting in delays in the release of forensic patients and complicating their reintegration into the community.<sup>138,139</sup> These delays were often due to the suspension of in-person meetings and the postponement of court proceedings, which are critical components of the parole and probation process.<sup>140–142</sup> The shift to remote operations posed challenges in effectively monitoring and supporting individuals under supervision, thereby hindering their successful reintegration.<sup>143–145</sup>

Additionally, the pandemic exacerbated existing challenges related to social services and housing stability for forensic patients.<sup>146</sup> Many individuals faced reduced access to essential services due to closures or limited operations of community organizations.<sup>147,148</sup> Housing instability became a more pressing issue as economic hardships increased, making it difficult for forensic patients to secure stable living conditions upon release.<sup>149–151</sup> This lack of support and stability further marginalized these individuals, increasing their risk of recidivism and adverse mental health outcomes.<sup>152</sup>

In response to these challenges, mental health providers and law enforcement agencies adapted by implementing remote supervision and virtual check-ins for forensic patients in the community.<sup>153,154</sup> The adoption of telehealth services allowed for continued mental health support, while virtual supervision methods enabled probation and parole officers to maintain contact with individuals under their supervision.<sup>155,156</sup> These adaptations were crucial in providing ongoing support and monitoring during a time when traditional in-person interactions were limited.

These developments underscore the need for flexible and resilient community forensic services capable of adapting to unforeseen challenges. Ensuring the availability of essential social services and stable housing, along with the integration of effective remote supervision methods, is vital for the successful reintegration of forensic patients into society, both during and beyond pandemic conditions. The COVID-19 pandemic has fundamentally altered the forensic patient release and reintegration process, leading to disruptions, challenges, and the implementation of adaptive measures (Fig. 2). These changes have reshaped the landscape of reintegration efforts and require careful consideration moving forward.



**Fig. 2.** The impact of the COVID-19 pandemic on the forensic patient release and reintegration process, highlighting disruptions to services, new reintegration challenges, and adaptive measures implemented.

## 5. Legal and ethical considerations in forensic mental health post-pandemic

The COVID-19 pandemic introduced complex legal and ethical challenges in forensic mental health, reshaping how legal processes, forensic evaluations, and psychiatric care are conducted.<sup>157</sup> Court closures and case backlogs delayed competency hearings and criminal responsibility assessments, raising concerns about prolonged detainment and due process violations.<sup>158,159</sup> The rapid shift to telepsychiatry for forensic assessments sparked debates over its reliability and admissibility in legal proceedings.<sup>160</sup> Ethical dilemmas emerged regarding involuntary hospitalization, treatment refusals, and resource allocation in overburdened forensic facilities.<sup>161</sup> As the post-pandemic era unfolds, balancing public health priorities with legal rights and ethical responsibilities remains a critical issue for forensic mental health professionals and policymakers.

#### 5.1. Delays and backlogs in the legal system

The COVID-19 pandemic has led to significant delays and backlogs in the legal system, particularly affecting individuals awaiting competency evaluations and criminal responsibility assessments.<sup>162</sup> Court closures and the suspension of judicial proceedings have resulted in prolonged

detentions, raising human rights concerns, especially for those held in forensic psychiatric units without timely access to legal processes.<sup>17, 163,164</sup> In many countries, judicial proceedings were suspended or postponed, hindering immediate judicial protection and creating a backlog of cases that affects the effectiveness and quality of criminal justice responses.<sup>165</sup>

These delays have exacerbated the already strained system, leading to extended periods of confinement for defendants presumed innocent, sometimes far exceeding the potential sentences for their alleged of-fenses.<sup>166</sup> The situation underscores the need for systemic reforms to address the inefficiencies in processing competency evaluations and to uphold the rights of individuals within the justice system.

#### 5.2. The impact on criminal responsibility and fitness to stand trial

The COVID-19 pandemic has introduced complex considerations in forensic psychiatry, particularly regarding criminal responsibility and fitness to stand trial.<sup>167</sup> Emerging cases of COVID-19-related psychosis have prompted discussions about whether pandemic-induced mental health conditions should influence criminal responsibility defences.<sup>168</sup> For instance, a case study highlighted an individual who developed acute psychosis with delusions centred on SARS-CoV-2 infection, leading to violent behaviour.<sup>169</sup> This raises questions about the extent to which such pandemic-induced psychosis could impact assessments of criminal responsibility.

Additionally, the long-term neuropsychiatric effects of COVID-19, such as cognitive impairments, have implications for competency to stand trial assessments.<sup>170</sup> Cognitive deficits resulting from COVID-19 may affect a defendant's ability to understand legal proceedings or assist in their defence, which are critical components of competency evaluations.<sup>171</sup> Legal professionals are debating how to address these challenges, emphasizing the need for updated guidelines to assess defendants who have experienced COVID-19-related cognitive impairments.<sup>172</sup> These developments underscore the necessity for the legal system to adapt to the evolving understanding of COVID-19's neuropsychiatric impacts. Courts and forensic experts must consider these factors when evaluating criminal responsibility and competency to

ensure fair and just legal proceedings.

#### 5.3. Ethical dilemmas in forensic psychiatry

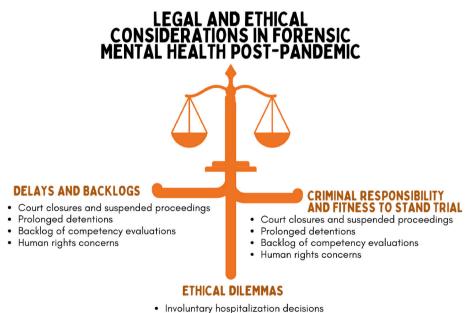
The COVID-19 pandemic has presented forensic psychiatry with complex ethical dilemmas, particularly concerning involuntary hospitalization and resource allocation.<sup>173</sup> Clinicians faced challenges in deciding whether to hospitalize patients against their will during outbreaks, balancing the need for treatment with the risk of virus transmission within facilities.<sup>173</sup> The situation raised concerns about patient autonomy and the potential for harm due to increased exposure to COVID-19 in congregate settings.<sup>174</sup> Additionally, the reallocation of medical resources, such as prioritizing general hospital beds over forensic psychiatric admissions, led to ethical debates about equity in mental health care.<sup>175,176</sup> These decisions often resulted in limited access to necessary psychiatric treatment for forensic patients, highlighting systemic disparities and the need for ethical frameworks to guide resource distribution during public health crises. As illustrated in Fig. 3, delays in the legal system, complexities in assessing criminal responsibility, and ethical dilemmas have become prominent concerns in forensic mental health post-pandemic.

#### 6. Lessons learned and future directions

The COVID-19 pandemic highlighted critical vulnerabilities in forensic mental health systems, emphasizing the need for resilience, adaptability, and innovation in service delivery. The crisis exposed gaps in patient care, legal processes, and resource allocation, prompting the rapid adoption of telepsychiatry, revised legal procedures, and alternative supervision methods.<sup>177</sup> Moving forward, several key lessons can guide improvements:

#### 6.1. Enhancing telepsychiatry while addressing its limitations

The COVID-19 pandemic has accelerated the adoption of telepsychiatry in forensic mental health, offering solutions to challenges posed by restricted in-person interactions.<sup>92,178,179</sup> While telepsychiatry



- Resource allocation challenges
- Patient autonomy vs. public health
- Equity in mental health care access

Fig. 3. Summary of key legal and ethical considerations in forensic mental health in the post-pandemic era, including challenges related to court delays, criminal responsibility assessments, and ethical dilemmas concerning patient care and resource allocation.

has improved accessibility, concerns persist regarding its effectiveness in conducting comprehensive forensic evaluations, particularly in assessing nuanced behaviours and ensuring the authenticity of patient responses.<sup>180</sup> To address these limitations, hybrid models that integrate both in-person and remote assessments have been proposed.<sup>181</sup> Such models aim to combine the convenience and reach of telepsychiatry with the depth of face-to-face interactions, potentially enhancing the quality and reliability of forensic evaluations.<sup>181</sup> The Aman Psychiatric Association suggests that hybrid care models can maximize the benefits of virtual and physical interactions, tailoring approaches to individual patient needs and specific clinical scenarios.<sup>182,183</sup> Implementing these models requires careful consideration of administrative, operational, and clinical factors to ensure efficacy and maintain ethical standards. By leverage the strengths of both modalities, forensic mental health services can enhance assessment accuracy while maintaining accessibility.

#### 6.2. Strengthening forensic mental health infrastructure

The COVID-19 pandemic has underscored the critical need to strengthen forensic mental health infrastructure to ensure continuity of care during crises.<sup>184</sup> Investments in secure psychiatric facilities, community services, and telehealth resources are essential to build a resilient system capable of adapting to future challenges.<sup>185</sup> Secure psychiatric facilities faced significant challenges during the pandemic, including outbreaks of COVID-19 among patients and staff, leading to disruptions in care.<sup>186</sup> For instance, a study reported outbreaks in two secure forensic units, resulting in 13 patients and 10 staff members testing positive, with one patient fatality. The outbreaks lasted 41 days on each unit, highlighting the need for improved infection control measures and infrastructure enhancements to manage such crises effectively.<sup>187</sup>

Community forensic services also encountered difficulties, such as the reconfiguration of beds within forensic and adult services to create COVID-19-specific quarantine areas.<sup>188,189</sup> For example, Woodland View noted the reconfiguration of beds to establish a 'red zone' ward to support COVID-19 patients.<sup>190</sup> However, several services reported that their physical infrastructure was not compatible with the required infection control measures, impacting their ability to manage the pandemic effectively.

Telehealth emerged as a vital tool during the pandemic, enabling the continuation of mental health services amid restrictions on in-person interactions.<sup>191</sup> The rapid adoption of telepsychiatry facilitated ongoing care for forensic patients, ensuring access to essential services despite lockdown measures.<sup>92,99,192</sup> This shift underscores the importance of investing in telehealth infrastructure to maintain service delivery during emergencies.

Recent developments indicate a recognition of these needs. For instance, Kansas has committed to increasing hospital beds for mentally ill defendants to address excessive wait times for mental competence evaluations, aiming to open a new psychiatric hospital by January 2027 and seeking funds to reopen a 30-bed unit at Larned State Hospital.<sup>193</sup> By investing in these areas, forensic mental health systems can enhance their capacity to provide uninterrupted care during future crises, ensuring better outcomes for patients and upholding public safety.

#### 6.3. Integrating legal and clinical perspectives

The COVID-19 pandemic has highlighted the critical importance of ongoing collaboration among forensic psychiatrists, legal professionals, and policymakers to effectively address emerging challenges at the intersection of mental health and law.<sup>194</sup> Forensic psychiatry serves as a bridge between the medical and legal fields, providing essential insights into defendants' mental states and informing legal decisions.<sup>195</sup> This collaboration ensures that justice is both fair and informed by sound medical knowledge. Recent cases, such as the Nottingham attacks, underscore the consequences of systemic failures in mental health care and

the need for accountability and systemic change.<sup>196</sup> By fostering continuous dialogue and cooperation, these stakeholders can develop comprehensive strategies to navigate complex issues, uphold ethical standards, and promote justice for individuals with mental health disorders within the legal system.

#### 6.4. Research opportunities and limitations of the study

The COVID-19 pandemic has highlighted significant gaps in our understanding of its long-term effects on forensic mental health, presenting numerous research opportunities. Future studies could explore the pandemic's impact on patient profiles, such as changes in the prevalence and severity of mental health disorders within forensic populations. Investigating the effectiveness of telepsychiatry in forensic settings, including its influence on assessment accuracy and therapeutic outcomes, is another critical area. Additionally, examining the ethical and legal implications of pandemic-induced modifications in service delivery and legal processes could inform policy and practice. Research into the pandemic's effects on staff well-being and the subsequent impact on patient care within forensic settings is also warranted. These areas of inquiry are essential for developing evidence-based strategies to enhance forensic mental health services in future crises.

However, this narrative review has limitations that must be acknowledged. The inherent subjectivity in selecting and interpreting literature may introduce bias, and the non-systematic methodology may result in the omission of relevant studies. The rapidly evolving nature of COVID-19-related research means that new findings may have emerged since the literature was reviewed. Additionally, the focus on certain themes may have led to the exclusion of other pertinent topics within forensic mental health. Future research should aim to address these limitations by employing systematic review methodologies, incorporating the most recent data, and exploring a broader range of issues to provide a more comprehensive understanding of the pandemic's impact on forensic mental health.

#### 7. Conclusion

The COVID-19 pandemic has profoundly impacted forensic mental health, reshaping patient demographics, altering service delivery models, and challenging traditional legal frameworks.<sup>197,198</sup> The crisis exposed vulnerabilities within forensic mental health systems, such as staffing shortages and limited resources, which hindered the ability to manage both mental health and infection control effectively.<sup>199</sup> However, it also highlighted opportunities for innovation, including the rapid adoption of telepsychiatry and the development of new approaches to community reintegration.<sup>200</sup> As professionals and policymakers navigate the post-pandemic landscape, it is essential to implement evidence-based strategies that ensure high-quality care while safeguarding the rights of individuals within forensic settings. This includes investing in secure psychiatric facilities, enhancing community services, and fostering ongoing dialogue between forensic psychiatrists, legal professionals, and policy makers to address emerging challenges at the intersection of mental health and law.

#### Funding

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### References

- Smallwood N, Harrex W, Rees M, Willis K, Bennett CM. COVID-19 infection and the broader impacts of the pandemic on healthcare workers. *Respirology*. 2022 Jun 1;27(6):411–426.
- Thomas RK, Suleman R, Mackay M, et al. Adapting to the impact of COVID-19 on mental health: an international perspective. *J Psychiatr Neurosci.* 2020 Jul 1;45(4): 229–233.
- Kaye AD, Okeagu CN, Pham AD, et al. Economic impact of COVID-19 pandemic on healthcare facilities and systems: international perspectives. *Best Pract Res Clin Anaesthesiol.* 2021 Oct 1;35(3):293–306.
- Puangsri P, Jinanarong V, Wattanapisit A. Impacts on and care of psychiatric patients during the outbreak of COVID-19. *Clin Pract Epidemiol Ment Health*. 2021 Jul 12;17(1):52–60.
- 5. Chan HC. Editorial: psycho-criminology and forensic psychiatry: the intersections of mental health and the law. *Front Psychiatr.* 2023;14.
- van Es RMS, Kunst MJJ, de Keijser JW. Forensic mental health expert testimony and judicial decision-making: a systematic literature review. *Aggress Violent Behav*. 2020 Mar 1:51.
- Baker H, Gill SS, Aboaja A, Kole S, Perry AE. Study of impact of COVID-19 on mental health and wellbeing of staff working in a forensic mental health service. *Psych.* 2022 Oct 3;4(4):695–705.
- Clemente-Suárez VJ, Navarro-Jiménez E, Jimenez M, et al. Impact of COVID-19 pandemic in public mental health: an extensive narrative review. *Sustainability*. 2021 Mar 2;13(6).
- Daly M, Robinson E. Psychological distress and adaptation to the COVID-19 crisis in the United States. *J Psychiatr Res.* 2021 Apr 1;136:603–609.
- Prout TA, Zilcha-Mano S, Aafjes-van Doorn K, et al. Identifying predictors of psychological distress during COVID-19: a machine learning approach. Front Psychol. 2020 Nov 5:11.
- Santini ZI, Jose PE, York Cornwell E, et al. Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): a longitudinal mediation analysis. *Lancet Public Health.* 2020 Jan 1;5(1): e62–e70.
- Ornell F, Moura HF, Scherer JN, Pechansky F, Kessler FHP, von Diemen L. The COVID-19 pandemic and its impact on substance use: implications for prevention and treatment. *Psychiatry Res.* 2020 Jul 1:289.
- Jusienė R, Breidokienė R, Sabaliauskas S, Mieziene B, Emeljanovas A. The predictors of psychological well-being in Lithuanian adolescents after the second prolonged lockdown due to COVID-19 pandemic. *Int J Environ Res Publ Health*. 2022 Mar 1;19(6).
- Osimo SA, Aiello M, Gentili C, Ionta S, Cecchetto C. The influence of personality, resilience, and alexithymia on mental health during COVID-19 pandemic. *Front Psychol.* 2021 Feb 24:12.
- Wangmo T, Seaward H, Pageau F, Hiersemenzel LP, Elger BS. Forensic-psychiatric risk evaluations: perspectives of forensic psychiatric experts and older incarcerated persons from Switzerland. *Front Psychiatr.* 2021 Jun 14:12.
- Zangani C, Ostinelli EG, Smith KA, et al. Impact of the COVID-19 pandemic on the global delivery of mental health services and telemental health: systematic review. *JMIR Ment Health.* 2022 Aug 1;9(8).
- Söderberg A, Wallinius M, Munthe C, Rask M, Hörberg U. Forensic psychiatric patients' experiences of participating in administrative court proceedings concerning the continuation of forensic psychiatric care. *Front Psychiatr.* 2023;14.
- O'Brien M, McNicholas F. The use of telepsychiatry during COVID-19 and beyond. Ir J Psychol Med. 2020 Dec 1;37(4):250–255.
- Campbell K, Greenfield G, Li E, et al. The impact of virtual consultations on the quality of primary care: systematic review. J Med Internet Res. 2023;25.
- Seppänen A, Törmänen I, Shaw C, Kennedy H. Modern forensic psychiatric hospital design: clinical, legal and structural aspects. *Int J Ment Health Syst.* 2018 Oct 20;12 (1).
- Zhang X. Remote court hearing as a judicial response to the COVID-19 outbreak: an impact assessment and suggestions for improvement. J Glob Health. 2021;11.
- Suryavanshi SR, Netto IS. A study on the nature of criminal offences in prisoners with psychiatric disorders. Int J Community Med Public Health. 2021 Feb 24;8(3): 1262.
- Rajkumar RP. COVID-19 and mental health: a review of the existing literature. Asian J Psychiatr. 2020 Aug 1;52.
- Melillo A, Perrottelli A, Caporusso E, et al. Research evidence on the management of the cognitive impairment component of the post-COVID condition: a qualitative systematic review. *European Psychiatry*. 2024 Jan;67(1):e60.
- Pistarini C, Fiabane E, Houdayer E, Vassallo C, Manera MR, Alemanno F. Cognitive and emotional disturbances due to COVID-19: an exploratory study in the rehabilitation setting. *Front Neurol.* 2021 May 17;12.
- Aydogdu ALF. Ethical dilemmas experienced by nurses while caring for patients during the COVID-19 pandemic: an integrative review of qualitative studies. J Nurs Manag. 2022 Oct 1;30(7):2245–2258.
- Robert R, Kentish-Barnes N, Boyer A, Laurent A, Azoulay E, Reignier J. Ethical dilemmas due to the Covid-19 pandemic. *Ann Intensive Care*. 2020 Dec 1;10(1).
- Kip H, Bouman YHA, Kelders SM, van Gemert-Pijnen LJEWC. eHealth in treatment of offenders in forensic mental health: a review of the current state. *Front Psychiatr*. 2018 Feb 21;9(FEB).
- Connolly SL, Kuhn E, Possemato K, Torous J. Digital clinics and Mobile technology implementation for mental health care. *Curr Psychiatry Rep.* 2021 Jul 1;23(7).
- Beis P, Graf M, Hachtel H. Impact of legal traditions on forensic mental health treatment worldwide. *Front Psychiatr.* 2022 Apr 25;13.

#### Journal of Forensic and Legal Medicine 114 (2025) 102920

- **31.** Fiorillo A, Gorwood P. The consequences of the COVID-19 pandemic on mental health and implications for clinical practice. *Eur Psychiatry*. 2020;63(1).
- Puzzo I, Aldridge-Waddon L, Stokes N, Rainbird J, Kumari V. The impact of the COVID-19 pandemic on forensic mental health services and clinical outcomes: a longitudinal study. *Front Psychiatr.* 2022 Jan 18:12.
- Beis P, Graf M, Hachtel H. Impact of legal traditions on forensic mental health treatment worldwide. Front Psychiatr. 2022 Apr 25;13.
- 34. Söderberg A, Wallinius M, Munthe C, Hörberg U, Rask M. Self-Reported Perceptions of Patients and Staff on Participation and Verbal and Social Interactions in High-Security Forensic Psychiatric Care in Sweden. J Psychiatr Mental Health Nursing. 2025 Apr;32(2):263–275.
- Raveesh BN, Munoli RN. Ethical and legal aspects of telepsychiatry. Indian J Psychol Med. 2020 Oct 1;42(5\_suppl):63S–69S.
- Goldenson J, Josefowitz N. Remote forensic psychological assessment in civil cases: considerations for experts assessing harms from early life abuse. *Psychol Inj Law.* 2021 Jun 1;14(2):89–103.
- 37. Santomauro DF, Mantilla Herrera AM, Shadid J, et al. Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet.* 2021 Nov 6;398(10312):1700–1712.
- 38. Nochaiwong S, Ruengorn C, Thavorn K, et al. Global prevalence of mental health issues among the general population during the coronavirus disease-2019 pandemic: a systematic review and meta-analysis. *Sci Rep.* 2021 Dec 1;11(1).
- Walsh C, Hubley AM, To MJ, et al. The effect of forensic events on health status and housing stability among homeless and vulnerably housed individuals: a cohort study. *PLoS One*. 2019 Feb 1;14(2).
- 40. Kunzler AM, Lindner S, Röthke N, et al. Mental health impact of early stages of the COVID-19 pandemic on individuals with pre-existing mental disorders: a systematic review of longitudinal research. *Int J Environ Res Publ Health*. 2023 Jan 1:20(2).
- Vindegaard N, Benros ME. COVID-19 pandemic and mental health consequences: systematic review of the current evidence. *Brain Behav Immun.* 2020 Oct 1;89: 531–542.
- Morin CM, Bjorvatn B, Chung F, et al. Insomnia, anxiety, and depression during the COVID-19 pandemic: an international collaborative study. *Sleep Med.* 2021 Nov 1; 87:38–45.
- 43. Lim ICZY, Tam WWS, Chudzicka-Czupała A, et al. Prevalence of depression, anxiety and post-traumatic stress in war- and conflict-afflicted areas: a metaanalysis. *Front Psychiatr.* 2022 Sep 16;13.
- Racine N, McArthur BA, Cooke JE, Eirich R, Zhu J, Madigan S. Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: a meta-analysis. JAMA Pediatr. 2021 Nov 1;175(11):1142–1150.
- Chen J, Zhang SX, Yin A, Yáñez JA. Mental health symptoms during the COVID-19 pandemic in developing countries: a systematic review and meta-analysis. J Glob Health. 2022;12.
- 46. Kasturi S, Oguoma VM, Grant JB, Niyonsenga T, Mohanty I. Prevalence rates of depression and anxiety among young rural and urban Australians: a systematic review and meta-analysis. *Int J Environ Res Publ Health*. 2023 Jan 1;20(1).
- Falah-Hassani K, Shiri R, Dennis CL. The prevalence of antenatal and postnatal comorbid anxiety and depression: a meta-analysis. *Psychol Med.* 2017 Sep 1;47(12): 2041–2053.
- Zeng F, Guo Y, Yin M, Chen X, Deng G. Association of inflammatory markers with the severity of COVID-19 [cited 2025 Feb 10]; Available from: http://medrxiv.org/ lookup/doi/10.1101/2020.04.14.20065680; 2020 Apr 17.
- 49. Jagadheesan K, Danivas V, Itrat Q, Sekharan L, Lakra APV. COVID-19 and psychiatric admissions: an observational study of the first six months of lockdown in Melbourne. *Psychiatry Res.* 2021 Jun 1:300.
- Burrai J, Roma P, Barchielli B, et al. Psychological and emotional impact of patients living in psychiatric treatment communities during covid-19 lockdown in Italy. J Clin Med. 2020 Nov 1;9(11):1–11.
- Kreyenbuhl J, Nossel IR, Dixon LB. Disengagement from mental health treatment among individuals with schizophrenia and strategies for facilitating connections to care: a review of the literature. *Schizophr Bull [Internet]*. 2009 Jul 1;35(4):696–703. https://doi.org/10.1093/schbul/sbp046 [cited 2025 Feb 10].
- 52. Sheridan Rains L, Johnson S, Barnett P, et al. Early impacts of the COVID-19 pandemic on mental health care and on people with mental health conditions: framework synthesis of international experiences and responses. *Soc Psychiatr Psychiatr Epidemiol.* 2021 Jan 1;56(1):13–24.
- 53. Baumgart JG, Kane H, El-Hage W, et al. The early impacts of the covid-19 pandemic on mental health facilities and psychiatric professionals. *Int J Environ Res Publ Health.* 2021 Aug 1;18(15).
- Abbas MJ, Kronenberg G, McBride M, et al. The early impact of the COVID-19 pandemic on acute care mental health services. *Psychiatr Serv.* 2021 Mar 1;72(3): 242–246.
- Lim CT, Caan MP, Kim CH, Chow CM, Leff HS, Tepper MC. Care management for serious mental illness: a systematic review and meta-analysis. *Psychiatr Serv.* 2022 Feb 1;73(2):180–187.
- Kahl KG, Correll CU. Management of patients with severe mental illness during the coronavirus disease 2019 pandemic. JAMA Psychiatry. 2020 Sep 1;77(9):977–978.
- Sacco MA, Gualtieri S, Ricci P, Aquila I. The risk of suicide in the post-COVID-19 emergency era: Psychological and forensic implications. *Cureus*. 2023 Nov 19;15 (11), e49081. https://doi.org/10.7759/cureus.49081.
- Pignon B, Gourevitch R, Tebeka S, et al. Dramatic reduction of psychiatric emergency consultations during lockdown linked to COVID-19 in Paris and suburbs. *Psychiatr Clin Neurosci.* 2020 Oct 1;74(10):557–559.

- 59. Capuzzi E, Di Brita C, Caldiroli A, et al. Psychiatric emergency care during coronavirus 2019 (COVID 19) pandemic lockdown: results from a department of mental health and addiction of northern Italy. *Psychiatry Res.* 2020 Nov 1;293.
- 60. Stuijfzand S, Deforges C, Sandoz V, et al. Psychological impact of an epidemic/ pandemic on the mental health of healthcare professionals: a rapid review. BMC Public Health. 2020 Aug 12;20(1).
- Fteropoulli T, Kalavana TV, Yiallourou A, et al. Beyond the physical risk: psychosocial impact and coping in healthcare professionals during the COVID-19 pandemic. J Clin Nurs; 2021:1–15. https://doi.org/10.1111/jocn.15938.
- Magill E, Siegel Z, Pike KM. The mental health of frontline health care providers during pandemics: a rapid review of the literature. *Psychiatr Serv.* 2020 Dec 1;71 (12):1260–1269.
- 63. Ali AS, Al-Zughaibi T, Shaker AA. Substance use disorder and COVID-19; forensic medicine and pharmacology perspectives: a concise narrative review. Arab J Forensic Sci Forensic Med. 2021 Dec 1;3(2):315–330.
- Dubey MJ, Ghosh R, Chatterjee S, Biswas P, Chatterjee S, Dubey S. COVID-19 and addiction. *Diabetes Metabol Syndr: Clin Res Rev.* 2020 Sep 1;14(5):817–823.
- Witteveen D, Velthorst E. Economic hardship and mental health complaints during COVID-19. Proc Natl Acad Sci U S A. 2020 Nov 3;117(44):27277–27284.
- 66. Odani S, Shinozaki T, Shibuya K, Tabuchi T. Economic hardships and self-reported deterioration of physical and mental health under the COVID-19 pandemic: a cross-sectional study, 2020, Japan. J Epidemiol. 2022 Apr 5;32(4):195–203.
- Frankham C, Richardson T, Maguire N. Psychological factors associated with financial hardship and mental health: a systematic review. *Clin Psychol Rev.* 2020 Apr 1:77.
- 68. Cerezo A, Rivera DB, Sanchez D, Torres L, Chavez FLC, Drabble LA. Examining COVID-19 pandemic-related economic and household stress and its association with mental health, alcohol, and substance use in a national sample of latinx sexual minority and heterosexual adults. *Cult Divers Ethnic Minor Psychol*. 2023 May 18;30 (2):385–394.
- 69. Remesan AK, Sekaran VC, Jothikaran TAJ, Ashok L. Substance use among emerging adults during the COVID-19 pandemic: a review through the lens of sustainable development goals. *Int J Environ Res Publ Health*. 2023 Oct 1;20(19).
- Corace K, Arès I, Overington L, Kim HS. Substance use and mental health disorders: psychologists' role in bridging the gap. Can Psychol. 2022;63(3):405–412.
- Perker SS, Chester LEH. The justice system and young adults with substance use disorders. *Pediatrics*. 2021 Jan 1;147(2):S249–S258.
- Radfar SR, De Jong CAJ, Farhoudian A, et al. Reorganization of substance use treatment and harm reduction services during the COVID-19 pandemic: a global survey. *Front Psychiatr.* 2021 Apr 29:12.
- Malec JF, Salisbury DB, Anders D, et al. Response to the COVID-19 pandemic among posthospital brain injury rehabilitation providers. Arch Phys Med Rehabil. 2021 Mar 1;102(3):549–555.
- **74.** Houchen-Wolloff L, Steiner MC. Pulmonary rehabilitation at a time of social distancing: prime time for tele-rehabilitation? *Thorax*. 2020 Jun 1;75(6):446–447.
- 75. Sinha R. Stress and substance use disorders: risk, relapse, and treatment outcomes. J Clin Investig. 2024;134(16).
- 76. Capuzzi E, Di Brita C, Caldiroli A, et al. Psychiatric emergency care during coronavirus 2019 (COVID 19) pandemic lockdown: results from a department of mental health and addiction of northern Italy. *Psychiatry Res.* 2020 Nov 1;293.
- Jeremias D, Moura A, Rodrigues D, Laginhas C, Isaac J, Albuquerque R. Mental health in pandemic times - a review. *Eur Psychiatry*. 2021 Apr;64(S1):S310. S310.
- McFadden D, Prior K, Miles H, Hemraj S, Barrett EL. Genesis of change: substance use treatment for forensic patients with mental health concerns. *Drug Alcohol Rev.* 2022 Jan 1;41(1):256–259.
- **79.** Marquant T, Van Nuffel M, Sabbe B, Goethals K. Substance use disorders as a critical element for decision-making in forensic assertive community treatment: a systematic review. *Front Psychiatr.* 2021 Dec 7:12.
- Gugleta UV, Tošić-Golubović S, Žikić O, Slavković V, Petkovic M. Neuropsychiatric consequences of covid 19- CASE REPORT. Eur Psychiatry. 2023 Mar;66(S1):8810. S810.
- Dimka JL, Schneider BM, Mamelund SE. Protocol for a systematic review to understand the long-term mental-health effects of influenza pandemics in the pre-COVID-19 era. Scand J Publ Health. 2024 May 1;52(3):391–396.
- Vitalakumar D, Sharma A, Kumar A, Flora SJS. Neurological manifestations in COVID-19 patients: a meta-analysis. ACS Chem Neurosci. 2021 Aug 4;12(15): 2776–2797.
- Harapan BN, Yoo HJ. Neurological symptoms, manifestations, and complications associated with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease 19 (COVID-19). J Neurol. 2021 Sep 1;268(9):3059–3071.
- 84. Puodžiūnaitė M, Sadeckaitė R, Čikotienė A. Acute cerebral edema: a lethal neurological complication in a patient with COVID-19 infection. Case report and literature review. *Neurologijos seminarai*. 2023 Oct 3;26(92):85–90.
- Pajo AT, Espiritu AI, Apor ADAO, Jamora RDG. Neuropathologic findings of patients with COVID-19: a systematic review. *Neurol Sci.* 2021 Apr 1;42(4): 1255–1266.
- 86. Thye AYK, Law JWF, Tan LTH, et al. Psychological symptoms in COVID-19 patients: insights into pathophysiology and risk factors of long COVID-19. *Biology* (*Basel*). 2022 Jan 1;11(1).
- Zakia H, Pradana K, Iskandar S. Risk factors for psychiatric symptoms in patients with long COVID: a systematic review. *PLoS One*. 2023 Apr 1;18(4 April).
- Schou TM, Joca S, Wegener G, Bay-Richter C. Psychiatric and neuropsychiatric sequelae of COVID-19–A systematic review. *Brain, Behavior, and Immunity.* 2021 Oct 1;97:328–348.

- 89. Porter Staats ML, Kivisto AJ, Connell RE. The role of cognitive functioning in predicting restoration among criminal defendants committed for inpatient restoration of competence to stand trial. *Int J Law Psychiatr.* 2021 Jan 1:74.
- Varga DM, Voiță-Mekeres F, Buhaş CL, et al. The impact of the COVID-19 pandemic on forensic psychiatric examination. *Diagnostics*. 2025;15(4):483.
- Unützer J, Kimmel RJ, Snowden M. Psychiatry in the age of COVID-19. World Psychiatry. 2020;19(2):130.
- Derflinger B, Niedermier J, Misquitta D. Use of telepsychiatry to increase resident exposure to forensic psychiatry during COVID-19. Acad Psychiatry. 2021 Oct 1;45 (5):662–663.
- 93. Rubio-Valera M, Luciano JV, Ortiz JM, Salvador-Carulla L, Gracia A, Serrano-Blanco A. Health service use and costs associated with aggressiveness or agitation and containment in adult psychiatric care: a systematic review of the evidence. *BMC Psychiatry*. 2015 Dec 12;15(1).
- 94. Simpson AIF, Chatterjee S, Darby P, et al. Management of COVID-19 Response in a Secure Forensic Mental Health Setting: réponse à la gestion de la COVID-19 dans un établissement sécurisé de santé mentale et de psychiatrie légale. *Can J Psychiatr.* 2020 Oct 1;65(10):695–700.
- Sygel K, Wallinius M. Immersive virtual reality simulation in forensic psychiatry and adjacent clinical fields: a review of current assessment and treatment methods for practitioners. *Front Psychiatr.* 2021 May;28:12.
- 96. Liberati E, Richards N, Parker J, et al. Remote care for mental health: qualitative study with service users, carers and staff during the COVID-19 pandemic. BMJ Open. 2021 Apr 22;11(4).
- 97. Hewson T, Robinson L, Khalifa N, Hard J, Shaw J. Remote consultations in prison mental healthcare in England: impacts of COVID-19. *BJPsych Open*. 2021 Mar;7(2).
- Chen JA, Chung WJ, Young SK, et al. COVID-19 and telepsychiatry: early outpatient experiences and implications for the future. *Gen Hosp Psychiatry*. 2020 Sep 1:66:89–95.
- 99. Quinlan P, Smith R, Feldpausch N, White L. Lessons learned in the implementation of remote telehealth care in college psychiatry. *Academic Psychiatry*. 2021 Oct;1: 1–2.
- 100. Carroll A. Forensic mental-health assessments after coronavirus disease 2019: will telehealth lead Us to trade psychological depth for convenience? *Med Sci Law*. 2020 Jul 1;60(3):169–171.
- 101. Drogin EY. Forensic mental telehealth assessment (FMTA) in the context of COVID-19. Int J Law Psychiatr. 2020 Jul 1;71.
- 102. Kalin ML, Garlow SJ, Thertus K, Peterson MJ. Rapid implementation of telehealth in hospital psychiatry in response to COVID-19. *Am J Psychiatr.* 2020 Jul 1;177(7): 636–637.
- 103. Bistre M, Eitan R, Linkovsky O, et al. A comparative study reveals a similar validity of telepsychiatry and face-to-face psychiatric assessment in emergency room setting. Eur Psychiatry. 2021 Apr;64(S1):S348–S349.
- 104. Bistre M, Juven-Wetzler A, Argo D, et al. Comparable reliability and acceptability of telepsychiatry and face-to-face psychiatric assessments in the emergency room setting. Int J Psychiatry Clin Pract. 2022;26(3):228–233.
- 105. Kurokawa S, Nomura K, Hosogane N, et al. Reliability of telepsychiatry assessments using the attention-Deficit/Hyperactivity disorder rating Scale-IV for children with neurodevelopmental disorders and their caregivers: randomized feasibility study. J Med Internet Res. 2024;26(1).
- 106. Wood ME, Anderson JL, Glassmire DM. The macarthur competence assessment tool-criminal adjudication: factor structure, interrater reliability, and association with clinician opinion of competence in a forensic inpatient sample. *Psychol Assess.* 2017 Jun 1:29(6):776–785.
- 107. Kishel C, Vollmer T. An assessment of response to conversation cues of uninterest conducted via telehealth. *Behav Modif.* 2023 Mar 1;47(2):454–475.
- 108. Vass E, Simon V, Fekete Z, et al. A novel virtual reality-based theory of mind intervention for outpatients with schizophrenia: a proof-of-concept pilot study. *Clin Psychol Psychother.* 2021 May 1;28(3):727–738.
- 109. Cella M, Tomlin P, Robotham D, et al. Virtual reality supported therapy for the negative symptoms of schizophrenia: the V-NeST feasibility RCT. *Efficacy Mech Eval.* 2023 Oct 2;10(6):1–30.
- Goethals K. Legal and forensic issues in telepsychiatry. Eur Psychiatry. 2022 Jun;65 (S1):S55–S56.
- 111. Di Carlo F, Sociali A, Picutti E, et al. Telepsychiatry and other cutting-edge technologies in COVID-19 pandemic: Bridging the distance in mental health assistance. Int J Clin Pract. 2021;75(1).
- **112.** Cowan KE, McKean AJ, Gentry MT, Hilty DM. Barriers to use of telepsychiatry: clinicians as gatekeepers. *Mayo Clin Proc.* 2019 Dec 1;94(12):2510–2523.
- 113. Bernhard PA, McDowell L, Vincent GM. Forensic practitioners' use and perceptions of telepsychology before and during COVID-19. *Law and Human Behavior*. 2021 Oct;45(5):468.
- 114. Green AS, Ruchman SG, Katz CL, Singer EK. Piloting forensic tele-mental health evaluations of asylum seekers. *Psychiatry Res.* 2020 Sep 1;291.
- 115. Johnson L, Gutridge K, Parkes J, Roy A, Plugge E. Scoping review of mental health in prisons through the COVID-19 pandemic. *BMJ Open*. 2021 May 13;11(5).
- Kovach CP, Perman SM. Impact of the COVID-19 pandemic on cardiac arrest systems of care. *Curr Opin Crit Care [Internet]*. 2021 Jun 1;27(3):239–245. https:// doi.org/10.1097/MCC.00000000000817 [cited 2025 Feb 10].
- 117. Mascha EJ, Schober P, Schefold JC, Stueber F, Luedi MM. Staffing with diseasebased epidemiologic indices may reduce shortage of intensive care unit staff during the COVID-19 pandemic. *Anesth Analg.* 2020 Jul 1;131(1):24–30.
- 118. Holthof N, Luedi MM. Considerations for acute care staffing during a pandemic. Best Pract Res Clin Anaesthesiol. 2021 Oct 1;35(3):389–404.

#### Journal of Forensic and Legal Medicine 114 (2025) 102920

- 119. Çukurova N, Çam RAYP, Bölükbaşi A, Çelik G. COVID-19 pandemic and burnout: factors associated with burnout levels among healthcare workers. *Cukurova Medical Journal*. 2023 Jul 2;48(2):669–678.
- 120. Holas P, Wojtkowiak N, Gambin M, et al. Factors associated with burnout in Polish healthcare workers during the COVID-19 pandemic. *Front Public Health*. 2023 Jan 4;10.
- 121. Puzzo I, Aldridge-Waddon L, Stokes N, Rainbird J, Kumari V. The impact of the COVID-19 pandemic on forensic mental health services and clinical outcomes: a longitudinal study. *Front Psychiatr [Internet]*. 2022 Jan 18. https://doi.org/ 10.3389/fpsyt.2021.780236 [cited 2025 Feb 10];12.
- 122. Gupta S, Garcia-Zamora S, Juarez-Lloclla J, et al. Violence and aggression against nurses during the COVID-19 pandemic in Latin America. From the emerging leaders program of the interamerican society of cardiology (SIAC). J Adv Nurs. 2024 Mar 1;80(3):1212–1221.
- 123. Bonaccorso S, Ajnakina O, Ricciardi A, et al. Increased violence and aggression levels during the SARS-Cov-2 pandemic; data from three London acute psychiatric inpatient facilities. *Eur Psychiatry*. 2023 Mar;66(S1):S908. S908.
- 124. Hugelius K, Harada N, Marutani M. Consequences of visiting restrictions during the COVID-19 pandemic: an integrative review. Int J Nurs Stud. 2021 Sep 1:121.
- 125. Pandey D, Bansal S, Goyal S, et al. Psychological impact of mass quarantine on population during pandemics-the COVID-19 lock-down (COLD) study. *PLoS One.* 2020 Oct 1;15(10 October).
- 126. Benke C, Autenrieth LK, Asselmann E, Pané-Farré CA. Lockdown, quarantine measures, and social distancing: associations with depression, anxiety and distress at the beginning of the COVID-19 pandemic among adults from Germany. *Psychiatry Res.* 2020 Nov 1:293.
- 127. Muro A, Feliu-Soler A, Castellà J. Psychological impact of COVID-19 lockdowns among adult women: the predictive role of individual differences and lockdown duration. *Women Health.* 2021;61(7):668–679.
- 128. Luker S, Laver K, Lane R, et al. 'Put in a room and left': a qualitative study exploring the lived experiences of COVID-19 isolation and quarantine among rehabilitation inpatients. Ann Med. 2023;55(1):198–206.
- 129. Spielmanns M, Pekacka-Egli AM, Cecon M, et al. COVID-19 outbreak during inpatient rehabilitation: impact on settings and clinical course of neuromusculoskeletal rehabilitation patients. *Am J Phys Med Rehabil.* 2021 Mar 1; 100(3):203–208.
- 130. Koch M, Dvorak A, Hobersdorfer M, Yeghiazaryan L, Rabl U, Komorowski A. The impact of the COVID-19 pandemic on the psychosocial rehabilitation of forensic psychiatric patients in Austria. *Int. J Law Psychiatr.* 2023;88:101889.
- 131. Basrak N, Mulcrone N, Sharifuddin S, et al. Risk of adverse outcome of COVID-19 among patients in secure psychiatric services: observational cohort study. *BJPsych Open.* 2021 Jan;7(1), e31.
- 132. Lockwood A, Viglione J, Peck JH. COVID-19 and juvenile probation: a qualitative examination of emergent challenges and useful strategies. *Crim Justice Behav.* 2023 Jan 1;50(1):56–75.
- 133. Schwalbe CSJ, Koetzle D. What the COVID-19 pandemic teaches about the essential practices of community corrections and supervision. *Crim Justice Behav.* 2021 Sep 1;48(9):1300–1316.
- 134. Chiaramonte D, Simmons C, Hamdan N, et al. The impact of COVID-19 on the safety, housing stability, and mental health of unstably housed domestic violence survivors. J Community Psychol. 2022 Aug 1;50(6):2659–2681.
- 135. Columb D, Hussain R, O'Gara C. Addiction psychiatry and COVID-19: impact on patients and service provision. Ir J Psychol Med. 2020 Sep 1;37(3):164–168.
- 136. Hewson T, Robinson L, Khalifa N, Hard J, Shaw J. Remote consultations in prison mental healthcare in England: impacts of COVID-19. *BJPsych Open*. 2021 Mar;7(2).
- 137. Greer B, Newbery K, Cella M, Wykes T. Predicting inpatient aggression in forensic services using remote monitoring technology: qualitative study of staff perspectives. J Med Internet Res. 2019 Sep 1;21(9).
- Powell K, Hyatt JM, Link NW. Implementing reforms in community corrections: Lessons learned during the COVID-19 pandemic. *Crime & Delinquency*. 2022 Jul;68 (8):1223–1246.
- 139. Phillips J. The impact of the pandemic on probation: lessons for the future. Safer Communities. 2022 May 6;21(2):112–122.
- 140. Debus-Sherrill S, Breno A, Garcia A, Clubb AC, Chavez LA, Still W. Probation under quarantine: the impact of COVID-19 on probation in Alameda county. *Corrections*. 2022;7(5):337–356.
- 141. Martin KD, Zettler HR. COVID-19's impact on probation professionals' views about their roles and the future of probation. *Crim Justice Rev.* 2022 Jun 1;47(2):167–184.
- 142. Viglione J, Alward LM, Lockwood A, Bryson S. Adaptations to COVID-19 in community corrections agencies across the United States. InThe global impact of the COVID-19 pandemic on institutional and community corrections. 7. Routledge; 2021 Jul:458–478.
- 143. Behar JA, Liu C, Kotzen K, et al. Remote health diagnosis and monitoring in the time of COVID-19. *Physiol Meas.* 2020 Oct 1;41(10).
- 144. Lidén M. The impact of COVID-19 on criminal investigations and proceedings in Sweden – a snapshot of practitioners' realities. *Forensic Sci Int.* 2020 Jan 1;2: 325–332.
- 145. Watson AR, Wah R, Thamman R. The value of remote monitoring for the COVID-19 pandemic. *Telemed e-Health*. 2020 Sep 1;26(9):1110–1112.
- 146. Terkildsen MD, Vestergaard LK, Møllerhøj J, Sørensen LU. Forensic psychiatric patients' Perspectives on COVID-19 prevention measures: A qualitative study. *J Foren Psychol Res Pract.* 2024 Mar 14;24(2):245–267.
- 147. Russell C, Ali F, Nafeh F, Rehm J, LeBlanc S, Elton-Marshall T. Identifying the impacts of the COVID-19 pandemic on service access for people who use drugs (PWUD): a national qualitative study. J Subst Abuse Treat. 2021 Oct 1:129.

- 148. Higgins CD, Páez A, Kim G, Wang J. Changes in accessibility to emergency and community food services during COVID-19 and implications for low income populations in Hamilton, Ontario. Soc Sci Med. 2021 Dec 1:291.
- 149. Boen CE, Keister LA, Gibson-Davis CM, Luck A. The buffering effect of state eviction and foreclosure policies for mental health during the COVID-19 pandemic in the United States. J Health Soc Behav. 2023 Jun;19, 00221465231175939.
- **150.** Fedock G, Murray CM. Material needs, epistemic neglect, and slow violence: a systematic review of research focused on women affected by the criminal legal system. *Soc Serv Rev.* 2024 Mar 1;98(1):178–204.
- 151. Kim D. Financial hardship and social assistance as determinants of mental health and food and housing insecurity during the COVID-19 pandemic in the United States. SSM Popul Health. 2021 Dec 1;16.
- 152. Cunningham S, Seward JA, Clay K, Vigliotti VS. Adverse impacts of mental health needs assessment on jail outcomes evidence from transition age youth and adults. *J Hum Resour.* 2024;59(Supplement):S282–S316.
- 153. Farrell C, Petersen KL, Hanzouli P, Nicholls TL. Staff supported community outings among forensic mental health patients: patient characteristics, rehabilitative goals, and (the absence of) adverse outcomes. *Front Psychiatr.* 2024;15.
- 154. Pogue M, Raker E, Hampton K, Saint Laurent ML, Mishori R. Conducting remote medical asylum evaluations in the United States during COVID-19: Clinicians' perspectives on acceptability, challenges and opportunities. *J Foren Legal Med.* 2021;84:102255.
- 155. Van Deinse TB, Givens A, Cowell M, Ghezzi M, Murray-Lichtman A, Cuddeback GS. A randomized trial of specialty mental health probation: measuring implementation and effectiveness outcomes. *Adm Pol Ment Health.* 2022 May 1;49 (3):415–428.
- 156. Zaller N, Varghese FP, Bull C, et al. Telehealth among substance using justiceinvolved persons on community supervision: benefits, challenges, and suggestions for future use. J Rural Health. 2023 Mar 1;39(2):452–458.
- 157. Sediqzadah S, Ghebrehariat L, Weersink KT, Fisman DN, Naidoo KA. Involuntary isolation: interpreting mental health legislation during the COVID-19 pandemic. Br J Psychiatry. 2021 Nov 18;219(5):575–577.
- 158. Viglione J, Peck JH, Frazier JD. COVID-19 and courts: an exploration of the impacts of the pandemic on case processing and operations. *Vict Offenders*. 2023;18 (5):818–841.
- 159. closures Court. Economist (United Kingdom). 2012 Aug 18;404(8798).
- 160. Goethals K. Legal and forensic issues in telepsychiatry. Eur Psychiatry. 2022 Jun;65 (S1):S55–S56.
- 161. Franke I, Speiser O, Dudeck M, Streb J. Clinical ethics support services are not as well-established in forensic psychiatry as in general psychiatry. *Front Psychiatr.* 2020 Mar 13;11.
- 162. Miller J.M., Blumstein A. Crime, justice & the COVID-19 pandemic: Toward a national research agenda. Am J Crim. Just. 2020;45(4):515-524.
- 163. Jengic VS, Bujan AJ. Psychiatric treatment of mentally ill persons in custody legal, medical and ethical issues. *Eur Psychiatry*. 2021 Apr;64(S1):S380. S380.
- 164. Selvin M, Almqvist K, Kjellin L, Schröder A. The concept of patient participation in forensic psychiatric care: The patient perspective. *J Foren Nurs*. 2016 Apr 1;12(2): 57–63.
- 165. Baldwin JM, Eassey JM, Brooke EJ. Court operations during the COVID-19 pandemic. Am J Crim Justice. 2020 Aug;45:743–758.
- 166. Wilford MM, Zimmerman DM, Yan S, Sutherland KT. Innocence in the shadow of COVID-19: plea decision making during a pandemic. J Exp Psychol Appl. 2021;27 (4):739–750.
- 167. Vilalta C, Fondevila G, Massa R. The impact of Anti-COVID-19 measures on Mexico City criminal reports. Deviant Behav. 2023;44(5):723–737.
- **168.** Ferrando SJ, Klepacz L, Lynch S, et al. COVID-19 psychosis: a potential new neuropsychiatric condition triggered by novel coronavirus infection and the inflammatory response? *Psychosomatics*. 2020 Sep 1;61(5):551–555.
- 169. Vasile CI, Vasile MC, Zlati ML, et al. Post COVID-19 infection psychosis: could SARS-CoV-2 virus infection be a neuropsychiatric condition that triggers psychotic disorders? – a case-based short review. *Infect Drug Resist*. 2022;15:4697–4705.
- 170. Manca R, De Marco M, Venneri A. The impact of COVID-19 infection and enforced prolonged social isolation on neuropsychiatric symptoms in older adults with and without dementia: a review. *Front Psychiatr.* 2020 Oct 22;11.
- 171. Beaud V, Crottaz-Herbette S, Dunet V, et al. Pattern of cognitive deficits in severe COVID-19. J Neurol Neurosurg Psychiatry. 2021 May 1;92(5):567–568.
- 172. Fanshawe JB, Sargent BF, Badenoch JB, et al. Cognitive domains affected post-COVID-19; a systematic review and meta-analysis. *Eur J Neurol.* 2025 Jan;32(1), e16181.
- 173. Sorrentino RM, Dicola LA, Friedman SH. Covid-19, civil commitment, and ethics. J Am Acad Psychiatr Law. 2020 Dec 1;48(4):436–441.
- 174. Simjouw A, Verstegen N, Smid W, Langeveld A. Forensic psychiatry in times of COVID-19: a qualitative study into the concerns and needs of patients. *J Forensic Pract.* 2022 Oct 27;24(4):341–353.
- 175. Ventura CAA, Austin W, Carrara BS, de Brito ES. Nursing care in mental health: human rights and ethical issues. *Nurs Ethics.* 2021 Jun 1;28(4):463–480.
- 176. Wickremsinhe MN. Global mental health should engage with the ethics of involuntary admission. *Int J Ment Health Syst.* 2021 Dec 1;15(1).
- 177. Smith K, Ostinelli E, Macdonald O, Cipriani A. COVID-19 and telepsychiatry: development of evidence-based guidance for clinicians. *JMIR Mental Health.* 2020 Aug 28;7(8), e21108.
- 178. Ramalho R, Adiukwu F, Gashi Bytyçi D, et al. Telepsychiatry during the COVID-19 pandemic: development of a protocol for telemental health care. *Front Psychiatr.* 2020 Sep 23;11:552450.
- 179. Coe WH, Millard H. The impact of COVID-19 on inpatient psychiatry resident supervision. Academic Psychiatry. 2020 Dec;44(6):687–688.

- 180. Palfreman C. The use of telemedicine in forensic psychiatry–a quick scoping review of literature from the time of the COVID-19 pandemic. *J Foren Psychiatr Psychol.* 2023 Jan 2;34(1):81–93.
- 181. Sharma G, Devan K. The effectiveness of telepsychiatry: a thematic review. BJPsych Open. 2021 Jun;7(S1):S51. S51.
- 182. Stein DJ, Shoptaw SJ, Vigo DV, et al. Psychiatric diagnosis and treatment in the 21st century: paradigm shifts versus incremental integration. *World Psychiatry*. 2022 Oct 1;21(3):393–414.
- 183. Voskes Y, Van Melle AL, Widdershoven GAM, Mierlo V, Bovenberg FJM, Mulder CL. High and intensive care in psychiatry: a new model for acute inpatient care. *Psychiatr Serv.* 2021 Apr 1;72(4):475–477.
- 184. Johnson S, Dalton-Locke C, Baker J, et al. Acute psychiatric care: approaches to increasing the range of services and improving access and quality of care. World Psychiatry. 2022 Jun 1;21(2):220–236.
- 185. Unützer J, Kimmel RJ, Snowden M. Psychiatry in the age of COVID-19. World Psychiatry. 2020 Jun 1;19(2):130–131.
- 186. Li L. Challenges and priorities in responding to covid-19 in inpatient psychiatry. Psychiatr Serv. 2020 Jun 1;71(6):624–626.
- 187. Lemieux AJ, Michaud AA, Damasse J, et al. Management of COVID-19 for persons with mental illness in secure units: A rapid international review to inform practice in Québec. The Global Impact of the COVID-19 Pandemic on Institutional and. *Community Corrections*. 2021 Jul;7:518–542.
- 188. Roux C, Weyermann C. Can forensic science learn from the COVID-19 crisis? Forensic Sci Int. 2020 Nov 1;316.
- 189. Koch M, Dvorak A, Hobersdorfer M, Yeghiazaryan L, Rabl U, Komorowski A. The impact of COVID-19 on forensic rehabilitation in Austria. *Eur Psychiatry*. 2023 Mar; 66(S1). S206–S206.
- Louise. Forensic mental health services' response to the COVID-19 pandemic [cited 2025 Feb 13]; Available from: https://www.gov.scot/publications/mental-health-s cotlands-transition-recovery/; 2021.

- 191. Zhu JM, Myers R, McConnell KJ, Levander X, Lin SC. Trends in outpatient mental health services use before and during the COVID-19 pandemic. *Health Aff.* 2022 Apr 1;41(4):573–580.
- 192. Nagendrappa S, de Filippis R, Ramalho R, et al. Challenges and opportunities of psychiatric training during COVID-19: early career psychiatrists' perspective across the world. Academic Psychiatry. 2021 Oct;45(5):656–657.
- 193. Hanna J. The associated press. Kansas Agrees to More Beds for Mentally Ill Defendants to Settle Lawsuit | AP News; 2024 [cited 2025 Feb 17] https://apnews.com/article /mentally-ill-defendants-jails-federal-lawsuit-7031e8f1eb27cf281275417ff7033 b8d.
- Kamin D, Weisman RL, Lamberti JS. Promoting mental health and criminal justice collaboration through system-level partnerships. *Front Psychiatr [Internet]*. 2022; 13, 805649 [cited 2025 Feb 13] https://pubmed.ncbi.nlm.nih.gov/35178003/.
- **195.** Bailey RK. The grand challenge for forensic psychiatry. *Front Psychiatr*. 2011;2 (DEC).
- Nottingham attacks: NHS review into valdo Calocane's care finds major failings -BBC News [Internet]. [cited 2025 Feb 13]. Available from: https://www.bbc.co. uk/news/articles/cg7zexzndvko.
- 197. Zhong S, Yang X, Pan Z, et al. The usability, feasibility, acceptability, and efficacy of digital mental health services in the COVID-19 pandemic: scoping review, systematic review, and meta-analysis. *JMIR Public Health and Surveillance*. 2023;9 (1), e43730.
- 198. Wasser T, Hauser L, Kapoor R. The management of COVID-19 in forensic psychiatric institutions. *Psychiatric Services*. 2020 Oct 1;71(10):1088–1090.
- 199. Chevance A, Gourion D, Hoertel N, et al. Ensuring mental health care during the SARS-CoV-2 epidemic in France: a narrative review. *Encephale*. 2020 Jun 1;46(3): S3–S13.
- 200. Hong JSW, Sheriff R, Smith K, et al. Impact of COVID-19 on telepsychiatry at the service and individual patient level across two UK NHS mental health trusts. *Evid Base Ment Health*. 2021 Nov 1;24(4):161–166.